



IRVINGTON

Water Quality Report

Public Water System #5903432
Town Hall, 85 Main Street, Irvington, New York 10533

<http://www.irvingtonny.gov>
e-mail: office@irvingtonny.gov



Washington Irving

Annual Drinking Water Quality Report - 2014 - Public Water Supply ID# 5903432

INTRODUCTION

To comply with State regulations, The Irvington Water Department, issues an annual report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard this report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

We want you to be informed about your drinking water, please contact **James Englishby, Water and Sewer Superintendent at (914) 591-7870**. You may also contact the Village offices at 85 Main Street, Irvington, New York 10533. Residents wishing to discuss water related matters may call the Village office at (914) 597-7070 or attend a Board of Trustees meeting which is held at the Town Hall the first and third Mondays of each month except July, August, and September when the summer schedule is enacted, and then are held on the third Monday only.

WHERE DOES OUR WATER COME FROM?

In general, the sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our primary water source is from the Catskill Aqueduct that draws surface water from various reservoirs in upstate New York. This water has been treated and delivered by the Town of Greenburgh through a pump station located on Rumbrook Road, in the Town of Greenburgh during 2014, our system did not experience any restriction of our water source. The water is chlorinated, Caustic Soda is added for pH control, Ortho Phosphate is added prior to distribution to prevent Lead and Copper from leaching in to the water system. In addition we can also receive water through the Delaware Aqueduct and the Knollwood pump station located in the Town of Greenburgh, when the Catskill Aqueduct is not available. The water we receive from the Delaware Aqueduct is treated identically.

The water is chlorinated, Caustic Soda is added for pH control, Ortho Phosphate is added prior to distribution to prevent Lead and Copper from leaching in to the water system.

SOURCE WATER ASSESSMENT FINDINGS

The New York State Department of Health (NYSDOH) has evaluated the susceptibility of water supplies statewide to potential contamination under the Source Water Assessment Program (SWAP). Summarized in the paragraphs below are their findings related to our source of supply the Catskill/Delaware watersheds. It is important to stress that these assessments were created using available information and only estimate the potential for source water contamination. Furthermore, elevated susceptibility ratings do not mean that source water contamination has or will occur for this Public Water System (PWS). Please be advised this PWS provides treatment and regular monitoring to ensure the water delivered to consumers meets all applicable standards.

Specifically the reservoirs in the Catskill/Delaware watersheds, a mountainous rural area, are relatively deep with little development along their shorelines. The main water quality concerns associated with land cover is agriculture, which can contribute microbial contaminants, pesticides and algae producing nutrients. There are also some potential contamination concerns associated with residential lands and associated wastewater discharges. However, advanced treatments which reduce contaminants are in place for most of these discharges. There are also a number of other discrete facilities, such as landfills, chemical bulk storages, etc. that have the potential to impact local water quality, but large significant water quality problems associated with these facilities are unlikely due to the size of the watershed and surveillance and management practices.

Furthermore, the NYC DEP has implemented a series of programs to evaluate and protect source water quality within these watersheds. Their efforts focus on three important program areas: the enforcement of strengthened watershed rules and regulations; the acquisitions and protection of watershed lands; and implementation partnership programs that target specific sources of pollution in the watersheds. Additional information on the water quality and protection efforts in these New York City watersheds can be found at DEP's website at www.nyc.gov/html/dep/html/watershed_protection/home.html

FACTS AND FIGURES

Our water system serves a total of 6,631 residents through 1,583 service connections. In 2014 we received 352,267,329 gallons of water from the Catskill Aqueduct, which is supplied by the Town of Greenburgh. Water lost due to water main breaks, hydrant flushing and under registration of meters was estimated at 15%. Our daily average was 965,115 gallons per day.

The Board of Trustees sets water rates in the Village of Irvington. Residents are billed quarterly in units of 100 cubic feet (748 gallons); 1 unit equals 100 Cubic Feet. A charge for sewer service is added to each unit of water used. A few customers in the Town of Greenburgh and the Villages of Tarrytown and Dobbs Ferry who received water from the Village of Irvington pay a different rate.

Over the past 15 years the wholesale cost of water has risen in excess of 500%. In addition the excess threshold has been lowered from 125 units down to 100 units. Water usage in excess of 100 units during any quarterly billing period will be billed at a rate approximately 2.5 times higher than the base rate (please look at the chart below). All rates below go into effect as of **JUNE 2015**.

Rates for Village Residents

Water \$6.42 per 100 Cubic Feet
Sewer \$0.46 per 100 Cubic Feet

Rates for Out-of-Town Residents

Water \$10.64 per 100 Cubic Feet
Sewer \$0.76 per 100 Cubic Feet

Customers using more than 100 units (1 unit=100 Cubic Feet) are charged the following for each unit over 100.

Rates for Village Residents

Water \$16.09 per 100 Cubic Feet
Sewer \$1.19 per 100 Cubic Feet

Rates for Out-of-Town Residents

Water \$26.65 per 100 Cubic Feet
Sewer \$1.87 per 100 Cubic Feet

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

As the State regulations require, we routinely test your drinking water for numerous contaminants. These contaminants include: total coliform, turbidity, inorganic compounds, nitrate, nitrite, lead and copper, volatile organic compounds, total trihalomethanes, haloacetic acids, radiological and synthetic organic compounds. The table presented below depicts which compounds were detected in your drinking water. The State allows us to test for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old. It should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline (800-426-4791) or the Westchester County Health Department at (914) 813-5000.

TRihalOMETHANES - (chloroform, bromodichlormethane, dibromochlormethane and bromoform)

Trihalomethanes are a disinfection by-product of chlorinated drinking water. They are formed when source water contains large amounts of organic matter. Testing done for Trihalomethanes in recent years has consistently been within allowable limits of 80ug/l. Listed below are the test results for the year.

Site	Highest LRAA(4)	Range	# SAMPLES	MCL
Mercy College	31.54ug/l	(29.25- 35.37)ug/l	4	80ug/l
Irvington Police Department	28.89ug/l	(17.10.- 39.25)ug/l	4	80ug/l

HALOACETIC ACID S - (Mono-, di-, and trichloroacetic acid, and mono- and di-bromoacetic acid)

Haloacetic Acid is a disinfection by-product of drinking water chlorination. Testing done for Haloacetic Acid in recent year has been within allowable limits of 60ug/l. Listed below are the test results for the year.

Site	Highest LRAA(4)	Range	# SAMPLES	MCL
Mercy College	36.95ug/l	(32.17- 42.08)ug/l	4	60ug/l
Irvington Police Department	40.19ug/l	(26.98- 58.06)ug/l	4	60ug/l

LEAD AND COPPER RULE SAMPLING AT RESIDENTIAL WATER TAPS

PARAMETERS (ug/l)	MCL (ug/l)	MCL G (ug/l)	90 th ug/l PERCENTILE VALUES (Range)	#SITES EXCEEDING ACTION LEVEL	SOURCE	VIOLATION
Copper (2) August 30,2013	AL=1300	n/a	239 (.028- 566ug/l)	0 out of 20	Corrosion household plumbing systems	No
Lead (3) August 30,2013	AL= 15	n/a	8.9 (1.1- 85.7ug/l)	1 out of 20	Corrosion household plumbing systems	No

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. We have learned through our testing that some contaminants have been detected; however, these contaminants were detected below New York State requirements.

LEAD IN DRINKING WATER.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women, infants, and young children. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. Village of Irvington is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/safewater/lead>.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2014, the water system complied with all applicable State drinking water operating, monitoring and reporting requirements.

INFORMATION ON CRYPTOSPORIDIUM

Cryptosporidium is a microbial pathogen found in surface water and groundwater under the influence of surface water. Although filtration removes Cryptosporidium, the most commonly-used filtration methods cannot guarantee 100 percent removal. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Cryptosporidium may cause cryptosporidiosis, a gastrointestinal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their health care provider regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

INFORMATION ON GIARDIA

Giardia is a microbial pathogen present in varying concentrations in many surface waters and groundwater under the influence of surface water. Giardia is removed/inactivated through a combination of filtration and disinfection or by disinfection. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Ingestion of Giardia may cause giardiasis, an intestinal illness. People exposed to Giardia may experience mild or severe diarrhea, or in some instances no symptoms at all. Fever is rarely present. Occasionally, some individuals will have chronic diarrhea over several weeks or a month, with significant weight loss. Giardiasis can be treated with anti-parasitic medication. Individuals with weakened immune systems should consult with their health care providers about what steps would best reduce their risks of becoming infected with Giardiasis. Individuals who think that they may have been exposed to Giardiasis should contact their health care providers immediately. The Giardia parasite is passed in the feces of an infected person or animal and may contaminate water or food. Person to person transmission may also occur in day care centers or other settings where handwashing practices are poor.

TABLE OF DETECTED CONTAMINANTS

PARAMETER	DATE OF SAMPLES	RESULTS	MCL	VIOLATION	LIKELY SOURCE
Alkalinity	8/27/2014	12.7mg/l	-	No	Erosion of natural deposits
Calcium	8/27/2014	.0055ug/l	-	No	Erosion of natural deposits
Chloride	8/27/2014	12.3mg/l	250mg/l	No	Naturally occurring/Road salt
Copper	8/30/2013	239ug/l	1300ug/l	No	Corrosion of plumbing
Corrosivity	8/27/2014	-2.31	*1	No	
Fluoride	8/27/2014	.89mg/l	2.2mg/l	No	Water additive
Hardness	8/27/2014	19mg/l	*2	No	Erosion of natural deposits Iron
Iron	8/27/2014	22.2ug/l	3000ug/l	No	Natural occurring
Lead	8/30/2013	8.9ug/l	15ug/l	No	
Manganese	8/27/2014	20.0ug/l	300 ug/l	No	Natural occurring
Nitrate	8/27/2014	0.17mg/l	10 mg/l	No	Natural deposit/fertilizer
pH	8/27/2014	7.19	6.5-8.5	No	
Sodium	8/27/2014	9.1 mg/l	*3	No	Natural occurring
Sulfate	8/27/2014	3.12mg/l	250 mg/l	No	Natural occurring

*1 A longelieir index value less than zero indicates tendencies.

*2 Hardness up to 3 grains/gallon is considered soft water, between 3 and 9 moderately hard.

*3 No limit has been established at this time. With respect to sodium, water containing more than 20 mg/l should not be used for drinking By people on severely restricted sodium diet.

1- Turbidity is a measurement of water clarity how much the material suspended in water decreases the passage of light through the water. Suspended materials include soil particles (clay, silt, sand), algae, plankton, microbes, and other substances.

2 – The level presented represents the 90th percentile of the 20 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, (include number of samples, e.g. ten samples) samples were collected at your water system and the 90th percentile value was the (include what sample had the highest value, e.g. second highest value) value (include level detected e.g. 1.1 mg/l). The action level for copper was not exceeded at any of the sites tested.

3 – The level presented represents the 90th percentile of the (include number of samples, e.g. ten samples) samples collected. The action level for lead was exceeded at none of the 20 sites tested.

4- This level represents the highest locational running annual average calculated from data collected.

Definitions:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected-risk to health. MCLGs allow for a margin of safety.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Non-Detects (ND): Laboratory analysis indicates that the constituent is not present.

Non-Detectable Level (NDL)

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Milligrams per liter (mg/l): Corresponds to one part of liquid in one million parts of liquid (parts per million - ppm).

Micrograms per liter (ug/l): Corresponds to one part of liquid in one billion parts of liquid (parts per billion - ppb).

Nanograms per liter (ng/l): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

Picograms per liter (pg/l): Corresponds to one part per of liquid to one quadrillion parts of liquid (parts per quadrillion – ppq).

Picocuries per liter (pCi/L): A measure of the radioactivity in water.

Millirems per year (mrem/yr): A measure of radiation absorbed by the body.

Million Fibers per Liter (MFL): A measure of the presence of asbestos fibers that are longer than 10 micrometers.

Limit of Quantitation (LOQ): The minimum levels, concentrations or quantities of a target analyte that can be reported with a specified degree of confidence. A notation of (<LOQ) (less than LOQ) indicates that the target analyte was either not present, or at to low a concentration to be quantified accurately.

INFORMATION ON RADON

Radon is a naturally-occurring radioactive gas found in soil and outdoor air that may also be found in drinking water and indoor air. Some people exposed to elevated radon levels over many years in drinking water may have an increased risk of getting cancer. The main risk is lung cancer from radon entering indoor air from soil under homes.

For additional information call your state radon program (1-800-458-1158) or call EPA's Radon Hotline (1-800-SOS-Radon).

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium*, *Giardia* and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

INFORMATION ON FLUORIDE ADDITION

Our system is one of the many drinking water systems in New York State that provides drinking water with a controlled, low level of fluoride for consumer dental health protection. The New York State Department of Environmental Protection adds fluoride to your water before it is delivered to us. According to the United States Centers for Disease Control, fluoride is very effective in preventing cavities when present in drinking water at an optimal range from 0.8 to 1.2 mg/l (parts per million). To ensure that the fluoride supplement in your water provides optimal dental protection, the State Department of Health requires that New York Department of Environmental Protection monitor fluoride levels on a daily basis. None of the monitoring results showed fluoride at levels that approach the 2.2 mg/l MCL for fluoride.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

Under the 1996 amendments to the Federal Safe Water Drinking Act, and the Third Unregulated Contaminant Monitoring Rule (UMRC3), EPA is required once every five years to issue a new list of up to 30 unregulated contaminants for which public water systems must monitor. The intent of this new rule is to provide baseline occurrence data that the EPA can combine with toxicological research to make decisions about potential future drinking water regulations. For more information on the rule, and to see a list of the 30 unregulated contaminants, go to-

<http://water.epa.gov/lawregs/rulesregs/sdwa/ucmr/ucmr3/index.cfm>.

INFORMATION FOR NON-ENGLISH SPEAKING RESIDENTS

Spanish

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- ◆ Saving water saves energy and some of the costs associated with both of these necessities of life;
- ◆ Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- ◆ Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential fire fighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- ◆ Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- ◆ Turn off the tap when brushing your teeth.
- ◆ Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- ◆ Check your toilets for leaks by putting a few drops of food coloring in the tank, watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from one of these otherwise invisible toilet leaks. Fix it and you save more than 30,000 gallons a year.
- ◆ Use your water meter to detect hidden leaks. Simply turn off all taps and water using appliances, and then check the meter after 15 minutes. If it moved, you have a leak.

SYSTEM IMPROVEMENTS

The Village of Irvington has rehabilitated the 1,200,000 million gallon Riverview Road water storage tank. The Village completed this work in the Fall of 2014. As part of our ongoing maintenance program, we have started a valve turning and replacement program. In addition, we have replaced fire hydrants that have reached a certain age to improve fire protection.

Village of Irvington
Village Hall
Irvington, New York 10533

PRSRT STD
U.S. POSTAGE PAID
WHITE PLAINS, NY
PERMIT NO. 3314

ECRWSS

POSTAL PATRON

 Printed on Recycled Paper

IMPORTANT TELEPHONE NUMBERS

1-1-1-4791	Safe Drinking Water Hotline
1-1-1-1158	State Radon Program
1-800-SOS-RADON	The EPA's Radon Hotline
1-1-1-7713	New York State Department of Health
1-914-813-5000	Westchester County Department of Health
1-914-591-7870	James Englishby, Irvington Water Department

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. We ask that all our customers help us protect our water sources, which are the heart of our community. Please call our office if you have questions. (914) 591-7870.

Please share this report with others! Landlords, businesses, and other enterprises are encouraged to share this important water quality information with users at their locations. Additional copies of this report may be obtained by contacting the Village of Irvington Water & Sewer Department at (914) 591-7870

James A. Englishby
Superintendent of Water and Sewer Department